Approved For Release 2001/08/07 : CIA-RDP66R00546R000100090283-3

25X1A

[redacted]-2797-63

19 JUN 1963

MEMORANDUM FOR : Director, National Reconnaissance Office

SUBJECT : Improved Photographic Coverage of Cuba

REFERENCE : Memorandum for the Director, NRO [redacted] from Director, National Reconnaissance Office, dated 23 May 1963, subject: Improved Photographic Coverage of Cuba ([redacted]-5040-63) 25X1A

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1. The Eastman Type II camera for GAMART can be converted for installation in an IDEALIST vehicle in approximately 40 days, including 6 days of operational readiness test flying. A total of 21 flights were made with this camera in the IDEALIST vehicle exposing 32,150 frames of photography of which 250 were lost due to camera malfunction. Attachment A, a copy of a report on these tests, is submitted for your information.

2. It will be noted in figures 3 and 4 of Attachment A that typical lens and film resolution measured in the laboratory gives from 95 to 120 lines per millimeter resolution out to 9° off axis, whereas the flight test results show a dynamic resolution of 40 to 70 lines per millimeter in the center of the format and 80 to 110 at 4° off axis. Since the camera was designed for use in a higher performance vehicle, the camera cycling rate gives a good deal of redundancy when used at IDEALIST velocities and altitudes, this, however, is not a detrimental factor. One result of this characteristic is that a ground object will appear several times in different positions on the format and could have a resolution of from 40 to 110 lines, depending upon its position with respect to the lens. Another result is that the installation of the prototype camera in the IDEALIST vehicle had to be made without a stabilized platform which increases the degrading effect of vehicle roll, pitch, and yaw oscillations. Others of the first three cameras would have a stabilized platform adaptable to the IDEALIST aircraft. At an average of 86 lines per millimeter resolution, ground resolution from 70,000' would be 1.5 feet.

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3. There are only three Eastman Type II cameras on order to support OXCART operational requirements. Thus far, only one prototype camera has been delivered, although the other two are awaiting advice from the field for delivery. Since the testing of this camera has not been completed at operational environment, it is deemed impractical to release the camera from the OXCART program at this time. Any order of additional OXCART cameras for use in IDEALIST aircraft would represent 8-9 months delivery time for the first such configuration and a cost of $800,000 per camera.

/s/

EDWARD B. GILLER
Acting Deputy Director
(Research)

Att: Reference
Attachment A

Signature Recommended:

JACK C. LEDFORD
COLONEL, USAF
Assistant Director
(Special Activities)

25X1A [redacted] DD/OSA:mvp (18 June 1963)

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